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REVIEW

for a scientific monograph Doctor of Sciences (Economics) Yurii Kharazishvili, Doctor of Sciences (Economics) Dmytro Bugayko, Doctor of Sciences (Economics) Viachyslav Lyashenko

"SUSTAINABLE DEVELOPMENT OF AIR TRANSPORT OF UKRAINE: STRATEGIC SCENARIOS AND INSTITUTIONAL SUPPORT",

prepared at the Institute of Industrial Economics of the National Academy of Sciences of Ukraine

The monograph is dedicated to the study of three challenges - sustainable development, strategic management of air transport security and the shadow economy. The authors meaningfully consider them in connection and interconnection and reveal and justify the expediency of introducing the principles of sustainable development into the air transport system with an emphasis on the implementation of safety requirements and the minimization of the shadow economy.

The monograph consists of 5 chapters.

The first chapter is devoted to the disclosure of the theoretical and conceptual foundations of the strategic management of the safety of the aviation industry. Its relevance and practical importance for the sustainable development of not only a separate industry, but also the national, regional, international and global economy have been proven. It was determined that the safety management system is a basic component of aviation transport. The authors have developed an organizational and economic mechanism for the consistency of the strategic management of the safety of the development of aviation transport with the Sustainable Development Goals, of which the 17 Sustainable Development Goals of the UN Agenda for 2030 can be used as guidelines for creating proper conditions for the safe functioning of the aviation sector in the UN member states. At the same time, the reliability of the hypothesis was proven, according to which the national air transport safety management system is an open integrated system that has management, functional and informational connections with subsystems of sustainable development and safety at different hierarchical levels.

In the third section of the monograph, the authors identified the threat based on the concept of "risk" of air transport, the theoretical justification of the list and the importance of the impact of the threat of air transport using the method of imbalances. At the same time, an effective mechanism of anticipatory risk management in hierarchical systems is the degree of their

vulnerability using the "Swiss cheese" model of Professor J. Reason and structural analysis of deficiencies (GAP Analysis) at the levels of active and passive subsystems of the protection of aviation transport systems, namely: equipment and technologies, norms and rules of regulation, processes of personnel training/retraining. The integration of risks is created in the following directions: economic, ecological, social, technological, flight safety, aviation security and protection against terrorism, foreign policy, logistics interaction and related sectors of the economy. The author's paid special attention to "shadow" indicators, without achieving which the level of sustainable development is impossible not only for air transport, but also for Ukraine as a whole.

In the fourth chapter, the authors propose connecting foresight to assess the long-term prospects of science, technology, economy and society, strategic directions of research and new technologies, with methodological identification and strategizing based on the classical principle of "future determined by the trajectory into the future", that is, the creation of a scientific and strategic foresight tool. The authors demonstrate a good awareness of the decisions on the deshadowing of the labour market, which have been made by other scholars, and propose their own measures in this area. The fourth chapter also developed institutional measures to neutralize threats and risks in the field of air transport. At the level of state bodies regulating the air transport market and the development of air transport, suggested implementing the following state programs: aviation safety; counteracting the negative impact of COVID-19 on air transport; aviation personnel training.

In the fifth chapter, forecast scenarios of decline and strategic scenarios of the post-war development of Ukraine's economy during the full-scale military aggression against Ukraine are investigated. For further calculations, the authors chose the worst forecast of a drop in the real GDP of Ukraine - 45% and built the desired exponential growth trajectories until 2030 according to three scenarios: 1. Achieving the level of the real GDP of Ukraine in 2015, which grows by 6.3% annually, 2. Achieving the level of Ukraine's real GDP in 2021, which grows by 7.8% annually, 3. Achieving the level of Ukraine's real GDP in 2008, which assumes an annual growth of 9.5%. 4. Achieving the level of real GDP of Ukraine in 2021 in 2048, which assumes an annual growth of 2.3%. To develop strategic scenarios for post-war recovery, a forecast of macro indicators and corresponding indicators of air transport for 2022 was made based on the assumed fall in Ukraine's GDP (-45%). As strategic goals until 2030, taking into account the current value of the integral index of sustainable development of aviation transport with the vector of limit values, the following were defined: 1. Realistic scenario - achievement of the lower threshold value. 2. Optimistic scenario - reaching the average value between the lower optimal and lower threshold values of the integral index. 3. The scenario of entering the zone of optimal sustainable development - reaching the lower optimal value of the integral index. The next stage after entering the optimal zone of the limit values is the achievement of the integral indicator of the sustainable development of air transport of the average optimal value both for all components and for all indicators - balanced sustainable development. Also, the monographs identify the threats and challenges of aviation transport of Ukraine during the full-scale military aggression against Ukraine in the areas of airline activity, the system of airports and airfields, the air traffic

control system, the aviation industry system, and the aviation education and science system of Ukraine. In response to the threats and challenges of wartime, a set of institutional measures was developed to ensure a realistic and optimistic scenario, as well as a scenario of entering the optimal security zone for the development of the post-war recovery of air transport of Ukraine. Institutional input measures to ensure the scenario of implementation in the optimal security development zone after including recovery: updating the provisions of the State Program on Flight Safety (Decree of the Cabinet of Ministers of Ukraine No. 656 dated 16.06.2021), the State Target Program for the Development of Airports for the Period Up to in 2023. (Decision of the Cabinet of Ministers of Ukraine No. 126 of February 24, 2016), the Concept of the State Targeted Scientific and Technical Program for the Development of the Aviation Industry for 2021-2030 (Decree of the Cabinet of Ministers of Ukraine No. 1412 of November 11, 2020) regarding post-war conditions. recovery and sustainable development; the development of mechanisms for the support of domestic air transport during the war period by the state in a harmonious combination with institutional measures regarding the broad involvement of investors of non-state ownership and foreign investors; cessation of destruction of aviation equipment and infrastructure, gradual return to the level of productivity of air transport of Ukraine in the second year after the war.

The overall impression of the content of the monograph is good. The innovative achievements of the authors are:

- development of an organizational and economic mechanism for the consistency of strategic management of the safety of the development of aviation transport with the Sustainable Development Goals, of which 17 Sustainable Development Goals are on the UN agenda for 2030;
- simultaneous application of the system of threshold values of economic, social, and environmental safety of air transport activities with the detailing of identifiers for each component as a reflection of the systemic approach;
- integration of aviation transport risks in the following areas: economic, environmental, social, technological, flight safety, aviation security and protection against terrorism, foreign policy, logistical interaction and related sectors of the economy;
- use of the method of social justice when identifying the shadow component of air transport activity;
- development of strategic scenarios for sustainable development and institutional support of air transport from a security perspective, including in the context of crisis phenomena, the global pandemic of COVID-19 and full-scale military aggression.